

WHAT IS CLAIMED IS:

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1. A ventilated sport shoe including a lower frame portion mounting a bearing member, wherein the ventilated sport shoe comprises:

an upper shoe portion defining an interior adapted to receive a foot;

5 and

a foot bed including a base secured to the upper shoe portion, the foot bed defining an upper surface capable of receiving the foot and the base defining a lower surface capable of mounting the lower frame portion thereon, the foot bed defining a ventilation channel formed within or below the upper surface of the foot bed and at least partially traversing the foot bed from an inlet aperture defined on an exterior of the lower surface of the base to an outlet aperture defined on the exterior of the lower surface of the base, the apertures providing ambient airflow into and out of the foot bed from the exterior of the base during use, wherein the ventilation channel is in moisture transport communication with the interior of the upper shoe portion, thereby providing ventilation and moisture transfer from the received foot to the channel and out of the outlet aperture.

2. The ventilated sport shoe of claim 1, wherein the upper shoe portion is configured for ventilation of upper portions of the foot.

3. The ventilated sport shoe of claim 1, wherein the inlet aperture is defined by the base and is longitudinally spaced from the outlet aperture relative to a longitudinal axis of the base.

4. The ventilated sport shoe of claim 3, wherein the inlet aperture is defined adjacent a toe portion of the base and the outlet aperture is defined adjacent a heel portion of the base.

5. The ventilated sport shoe of claim 4, wherein the inlet and outlet apertures and the ventilation channel are configured to provide continuous airflow therebetween for the length of the sport shoe, thereby providing ventilation and moisture transfer for substantially the entire length of the foot.

5 6. The ventilated sport shoe of claim 4, further comprising at least one branch ventilation channel extending from a branch inlet aperture, defined on the exterior of the base between the toe portion and the heel portion, rearwardly to join the ventilation channel.

7. The ventilated sport shoe of claim 6, further comprising a plurality of branch ventilation channels.

8. The ventilated sport shoe of claim 1, wherein the lower surface of the base defines a projection projecting downwardly from the lower surface, the inlet ventilation aperture being defined within the projection.

9. The ventilated sport shoe of claim 8, wherein the inlet ventilation aperture is disposed on a forward face of the projection, such that the forward face is oriented towards a toe portion of the base.

10. The ventilated sport shoe of claim 9, wherein the inlet ventilation aperture is positioned normal to the freestream airflow through the ventilation channel, thereby drawing airflow through the channel.

20 11. The ventilated sport shoe of claim 1, wherein the ventilation channel comprises a plurality of channels at least partially traversing the upper surface of

the foot bed providing airflow into and out of the foot bed for corresponding portions of the foot bed during use.

12. The ventilated sport shoe of claim 11, wherein the plurality of ventilation channels are arranged to ventilate at least a majority of the upper surface of the foot bed.

13. The ventilated sport shoe of claim 11, wherein the plurality of channels are disposed substantially parallel to a longitudinal axis of the foot bed.

14. The ventilated sport shoe of claim 11, wherein the plurality of channels are arranged over or within substantially the entire width of the upper surface of the foot bed.

15. The ventilated sport shoe of claim 1, wherein the ventilation channel is configured for at least a portion of its length as a groove formed in the upper surface of the base.

16. The ventilated sport shoe of claim 1, wherein the ventilated sport shoe is adapted for use as an in-line skate shoe, further comprising a lower frame secured to the base and a plurality of longitudinally aligned wheels mounted on the lower frame.

17. The ventilated sport shoe of claim 1, wherein the ventilation channel is defined in the base and the foot bed further comprises a substrate received within the upper shoe portion between an upper surface of the base and a user's foot, the substrate defining a plurality of moisture transport pathways in fluid communication with the ventilation channel.

18. The ventilated sport shoe of claim 17, wherein the substrate comprises a last board received on the upper surface of the base and joining the upper shoe portion to the base.

19. The ventilated sport shoe of claim 18, wherein the last board defines a plurality of apertures vertically extending therethrough at least partially aligned and in fluid communication with the ventilation channel.

~~20. The ventilated sport shoe of claim 18, wherein the substrate further comprises an insole received within the interior of the upper shoe portion over the last board.~~

~~21. The ventilated sport shoe of claim 20, wherein the insole defines a plurality of apertures vertically extending therethrough.~~

22. An in-line skate including a plurality of wheels, comprising:
an upper shoe portion defining an interior adapted to surround a user's foot;

a foot bed including a base secured to the upper shoe portion, the foot bed having an upper surface that supports the user's foot and the base having an exterior surface, wherein the base defines inlet and outlet ventilation apertures on the exterior surface of the base, and the foot bed defines a channel extending from the inlet to the outlet aperture and at least partially along the upper surface of the foot bed to provide ambient airflow into and out of the foot bed from the exterior of the base during use;

moisture transport means for placing the channel in moisture transport communication with the interior of the upper shoe portion, such that

motion of the skater during use causes airflow from the inlet aperture through the channel to the outlet aperture to draw moisture from the interior of the skate; and
a frame for mounting the plurality of wheels secured to the exterior of the base.

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23. A ventilated sport shoe base having an upper shoe portion adapted to receive a foot and a lower load-bearing surface, wherein the ventilated sport shoe comprises:

a base adapted to receive the upper shoe portion, the base defining an upper surface capable of receiving the foot and a lower surface capable of mounting the load-bearing surface, the base defining a ventilation channel at least partially traversing the upper surface of the base from an inlet aperture to an outlet aperture, the inlet and outlet apertures being defined on an exterior of the base to provide ambient airflow into and out of the base from the exterior of the base during use; and

a substrate received within the upper shoe portion on the upper surface of the base and including a plurality of moisture transport pathways therethrough wherein air flow can flow from the aperture, through the ventilation channel, and out the outlet aperture, drawing moisture from the foot through the moisture transport pathways.

20 24. A ventilated sport shoe including a lower frame portion mounting a bearing member, wherein the ventilated sport shoe comprises:

an upper shoe portion defining an interior adapted to receive a foot;
and

25 a foot bed including a base secured to the upper shoe portion, the foot bed defining an upper surface capable of receiving the foot and the base defining a lower surface capable of mounting the lower frame thereon, the foot

5 bed defining a ventilation channel formed within or below the upper surface of the foot bed and at least partially traversing the foot bed from an inlet aperture defined on an exterior of the base to an outlet aperture defined on the exterior of the base, the apertures providing airflow into and out of the foot bed during use, wherein the ventilation channel is in moisture transport communication with the interior of the upper shoe portion, thereby providing a ventilation and moisture transfer from the received foot to the channel and out the outlet aperture, wherein the lower surface of the base defines a projection projecting downwardly from the lower surface, the inlet ventilation aperture being defined within the projection.

10 25. The ventilated sport shoe of claim 24, wherein the inlet ventilation aperture is disposed on a forward face of the projection, such that the forward face is oriented towards a toe portion of the base.

15 26. The ventilated sport shoe of claim 25, wherein the inlet ventilation aperture is positioned normal to the freestream airflow through the ventilation channel, thereby drawing airflow through the channel.

20 27. A ventilated sport boot including a lower frame portion mounting a bearing member, the ventilated sport boot comprising:

a boot comprising:

an upper defining an interior adapted to receive a foot;

25 and

a base secured to the upper, the base defining an upper surface configured for supporting the foot, the base defining at least one ventilation channel formed within or below the upper surface of the base and at least partially traversing the base from an inlet aperture defined on an exterior of a lower surface of the base to an outlet aperture defined on the exterior of the base, the apertures

providing ambient airflow into and out of the base from the exterior of the base during use, wherein the at least one ventilation channel is in communication with the interior of the upper of the boot, thereby providing ventilation of the received foot to the at least one ventilation channel and out of the outlet aperture.

5 28. A ventilated sport boot according to claim 27, wherein the base constitutes an external sole of the boot.

10 29. An in-line skate including a plurality of wheels, comprising:
a boot including an upper, the upper including an interior adapted to surround a user's foot, the boot further comprising a base secured to the upper of the boot, the base having an upper surface that supports the user's foot and the base having an exterior surface, the base defining inlet and outlet ventilation apertures on the exterior surface of the base, the base defining a channel extending from the inlet aperture to the outlet aperture and at least partially along the upper surface of the base to provide ambient airflow into and out of the base from the exterior of the base during use;

15 a structural arrangement placing the channel in air flow communication with the interior of the upper of the boot, such that motion of a user of the skater causes airflow from the inlet aperture through the channel to the outlet aperture to draw air from the interior of the upper of the boot of the skate; and

20 a frame and a plurality of wheels mounted to the frame, the frame being secured to the exterior surface of the base.

25 30. A ventilated sport boot base having an upper boot portion adapted to receive a foot and a lower load-bearing surface, wherein the ventilated sport boot comprises:

5 a base adapted to receive the upper boot portion, the base defining an upper surface capable of receiving the foot and a lower surface capable of mounting the load-bearing surface, the base defining a ventilation channel at least partially traversing the upper surface of the base from an inlet aperture to an outlet aperture, the inlet and outlet apertures being defined on an exterior of the base to provide ambient airflow into and out of the base from the exterior of the base during use; and

10 a plantar support positioned within the upper boot portion on the upper surface of the base and including a plurality of pathways therethrough wherein air can flow from the aperture, through the ventilation channel, and out the outlet aperture, drawing air from the foot through the pathways.

31. A ventilated sport boot including a lower frame portion mounting a bearing member, wherein the ventilated sport boot comprises:

an upper boot portion defining an interior adapted to receive a foot;
and

15 a base secured to the upper boot portion, the base defining an upper surface capable of receiving the foot, the base defining a lower surface capable of mounting the lower frame thereon, the base defining a ventilation channel formed within or below the upper surface of the base and at least partially traversing the base from an inlet aperture defined on an exterior of the base to an outlet aperture defined on the exterior of the base, the apertures providing airflow into and out of the boot during use, the ventilation channel being in airflow transport communication with the interior of the upper boot portion, thereby providing a ventilation and air transfer from the received foot to the channel and out the outlet aperture, wherein the lower surface of the base defines a projection projecting downwardly from the lower surface, the inlet ventilation aperture being defined within the projection.